WSDOT has identified the financial need of the state highway system through a collaborative process with its transportation planning partners. We have developed transportation solutions based on the goals, objectives, and action strategies, in the WTP, adopted by the Washington State Transportation Commission. A comprehensive listing of the 20-year state highway system improvement strategies including planning level cost estimates have been compiled in Appendix K. (The entire database can be viewed at *www.wsdot.wa.gov/ppsc/planning*)

The chart below illustrates the 20-year need in each of the WSDOT program areas during the 20-year period of this plan (Figure1).

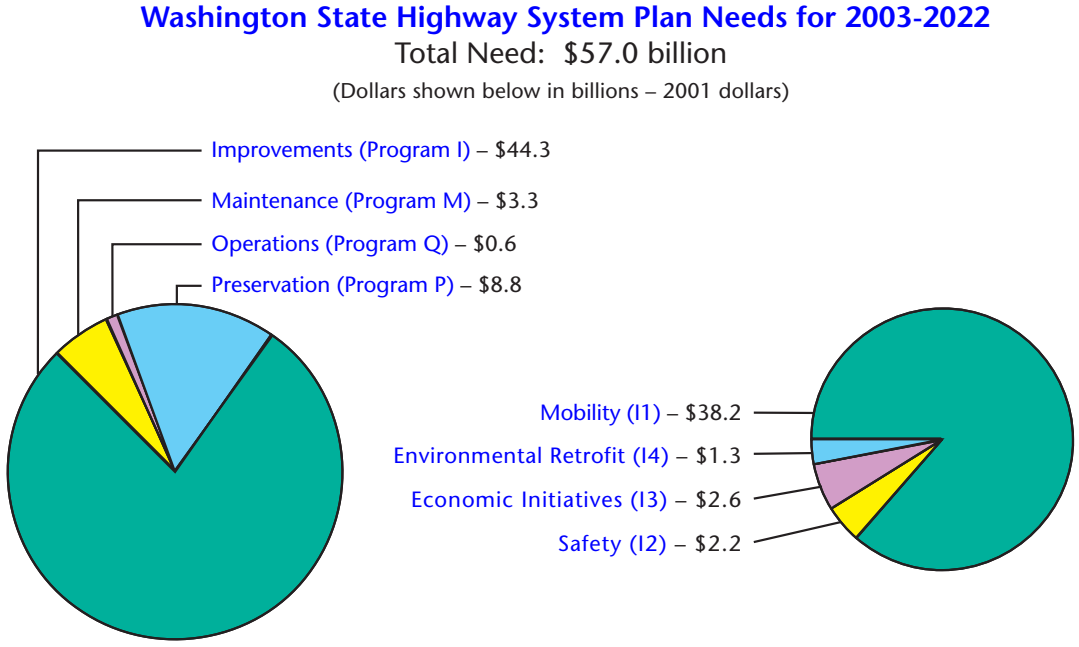

Figure 1. *The 20-year Highway System Plan is structured by objectives and action strategies for highway system facilities and maintenance and operations services. Since funding is not available to meet all the identified needs, priorities must be set. The plan is focused on taking care of the existing system first by establishing targets to fully fund Maintenance (M), Traffic Operations (Q), and Preservation (P) programs. Tradeoff decisions must be made to distribute any remaining funding among capital improvement areas: Mobility (I1), Highway Safety (I2), Economic Initiatives (I3), and Environmental Retrofit (I4). These improvement areas are subject to the discretion of future programming decisions to balance long- and short-term strategies to meet 20-year HSP targets.*

WSDOT forecasts $12.8 billion in revenue from current transportation revenue sources to address state highway system needs through the year 2022. The total financial need identified in the HSP through 2022 for the state highway system is estimated at $57 billion. The gap between highway needs and existing transportation revenues widens as investments fail to keep pace with growth. In order to meet growing needs, additional funding is necessary.

The Washington State Transportation Commission (WSTC) establishes transportation policy as required by the Washington State Legislature. The WSTC consists of seven members appointed by the Governor. The WSTC provides oversight to ensure that the department delivers a quality, multimodal transportation system that moves people and goods safely and efficiently. The WSTC also proposes transportation planning and funding recommendations for submission to the Legislature.

WSDOT in turn, is required to plan for the maintenance, preservation, operation and improvement of the state owned transportation network in accordance with WSTC Policy, state laws, and federal requirements (see Appendix E).

The HSP is the result of a statewide planning process. This plan is developed to be consistent with local, regional, and state policies. Public comment and participation is also actively solicited. Through this planning process and projected available resources, transportation projects are selected for programming, design, and construction.

Planning to Programming

The HSP identifies approximately 9,700 highway system solutions with an estimated cost of $57 billion. Current law revenue projected over the 20 years of this plan is approximately $12.8 billion. Given this shortfall of revenues versus needs, priorities must be set. In accordance with state law (RCW 47.05) WSDOT uses a priority programming process to determine which capital investments (construction projects) will be built within the current biennium, the forthcoming six years and the forthcoming 10 years.

WSDOT prioritizes the projects that are selected from the HSP and incorporates those prioritized projects into the 10-year Capital Improvement and Preservation Program (CIPP) (see Appendix I).

Figure 2: *The outer ring reflects all highway system needs identified in the 20-year Highway System Plan. The list is the basis for the 10-year Capital Improvement and Preservation Program. The list is reduced to create the six-year plan based on anticipated and projected revenues. Then, based on available funding, a two-year (biennial) budget is approved by the Legislature.*

Project Building

Once identified for possible funding, every project proposal is reviewed to ensure that the maximum benefit can be achieved for the public. Conceptual solutions are organized by state route and milepost to identify all potential project elements within a highway segment, (e.g., P1 paving, I2 safety improvements, and P3 major drainage rehabilitation – see map in Figure 3 below). The next step is to coordinate the implementation of these solutions into efficient projects that maximize available resources and minimize impacts to traffic flow.

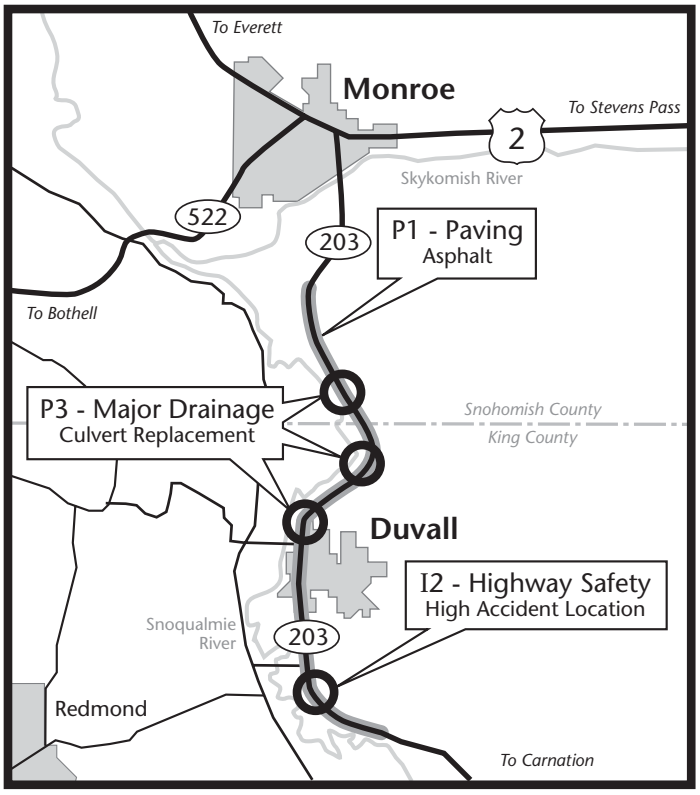

Figure 3.
For example, on State Route 203 (near Duvall in King County), the pavement is at its life cycle limit, meaning that WSDOT should repave the roadway now in order to prevent the need for more costly repair at a later date. Since repaving is needed now, other deficiencies within the area are examined to see if it would be more efficient to solve those deficiencies as part of the same project. Combining a drainage rehabilitation and a safety improvement on or near the same roadway segment into the same project would allow all the work to be done at a lower cost with less inconvenience to the public than if the projects were performed separately.

Improving WSDOT Planning Efforts

Coordination of planning efforts between city, county, MPO, RTPO, public and private transportation provider, and state transportation plans is required by federal and state law. It also makes good business sense. Coordination of transportation planning is a cyclical process and begins as a bottom-up approach (see Figure 4 below).

Cities and counties develop comprehensive plans to manage growth within their respective boundaries. Among other components, each comprehensive plan contains a land use element and a transportation element, which must be consistent with each other. The transportation element supports the land use element. For the majority of Washington cities and counties, the requirements in the Growth Management Act guide the development of local comprehensive plans. MPOs and RTPOs coordinate and develop metropolitan and regional transportation plans that are based on the local comprehensive plans.

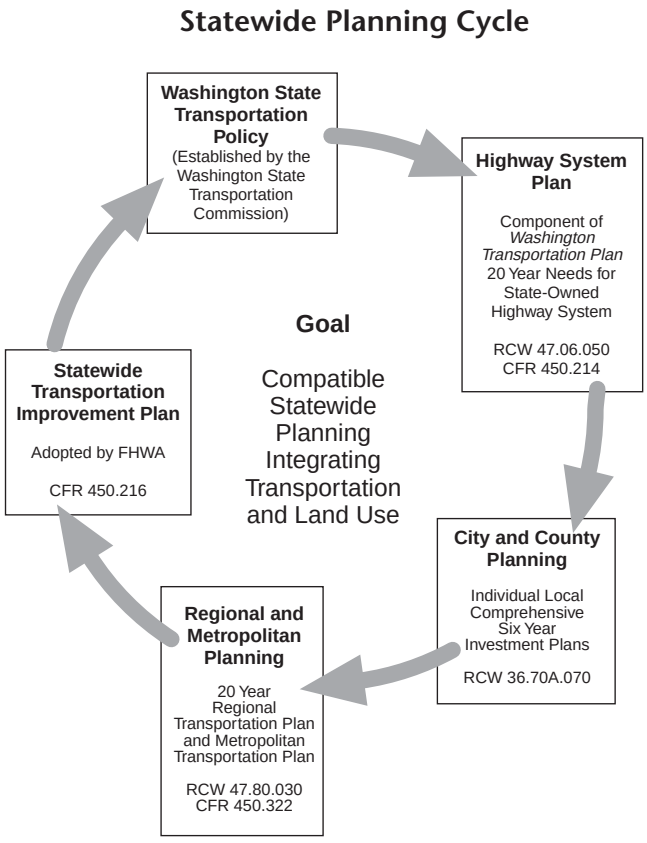

Figure 4. *Illustrates the general relationships between the various transportation planning processes and organizations.*

These costs are based on the reported conditions of the state highway system and the specific action strategies identified by program/subprogram. *(2001 Dollar values in millions)*

	Millions *(2001 dollars)*
Maintenance (Program M)	
Snow and Ice Control	$710
Traffic Services	$611
Roadway Maintenance and Operation	$553
Drainage Maintenance	$405
Roadside and Landscape Maintenance	$387
Bridge and Urban Tunnel Maintenance	$368
Repair and Disaster Maintenance	$206
Safety Rest Areas-Maintenance and Operation	$98
Maintenace Total	**$3,337**
Operations (Program Q)	
Traffic Flow Control	$207
Low Cost Safety Enhancements	$104
Traffic Flow and Safety Investigations	$84
Low Cost Enhancements	$68
Traveler Information Systems	$43
Advanced Technology for Commercial Vehicles	$40
Local Partnership Traveller Information	$21
Dispatch and Traffic Control	$20
Low Cost Traveler Information	$5
Expand CVISN Statewide	$3
Tourist Attraction Signing	$1
Operations Total	**$596**
Preservation (Program P)	
Pavements - P1	
Pavement (PCCP)	$1,696
Pavement (ACP)	$2,173
Pavement (BST)	$206
Other P1	$456
Pavements Total	**$4,530**
Structures - P2	
Bridge Replacement	$1,051
Seismic Retrofit	$275
Bridge Painting	$177
Bridge Decks	$85
Miscellaneous Structures	$61
Movable Bridges	$43
Scour Mitigiation	$12
Structures Total	**$1,704**
Other Facilities - P3	
Unstable Slopes	$2,045
Traffic Control Systems	$155
Weight Facilities	$129
Electronic/Mechanical Systems	$120
Major Drainage	$51
Safety Rest Area Refurbishment	$18
Other Structures Total	**$2,518**
Preservation Total	**$8,752**

These costs are based on the reported conditions of the state highway system and the specific action strategies identified by program/subprogram. *(2001 Dollar values in millions)*

	Millions *(2001 dollars)*
Improvements (Program I)	
Mobility - I1	
Congested" HSS	$32,192
Congested" non-HSS	$4,064
Puget Sound Core HOV Lanes	$1,264
Access Management for Non-Developed Corridors	$320
Access Management for Developed Corridors	$167
Urban Bicycle	$103
Multi-Modal Facilities	$58
Mobility Total	**$38,168**
Highway Safety - I2	
High Accident Corridors (HAC)	$677
At Grade Intersections	$583
Risk Reduction	$430
High Accident Locations (HAL)	$269
Signals and Channelization	$141
Interstate Safety	$129
Safety Initiatives	$21
Pedestrian Risk	$11
Pedestrian Accident Locations (PAL)	$0
Highway Safety Total	**$2,260**
Economic Initiatives - I3	
International Trade & Port Access	$516
Avalanche and Flood Closures	$34
Freight Trunk System	$266
All Weather Roadways (Freeze/Thaw)	$80
Height Restricted Bridges	$41
Columbia/Snake River Accommodations	$38
Bridge Overloads	$27
Border Crossings	$12
Economic Vitality	$475
Bicycle Touring Routes	$585
Heritage Corridor Plans	$124
Safety Rest Area	$54
Heritage Corridors Parks and Viewpoints	$1
Economic Initiatives Total	**$2,563**
Environmental Retrofit - I4	
Stormwater	$1,134
Fish Barriers	$131
Noise Reduction	$52
Chronic Environmental Deficiencies	$40
Air Quality	$0
Wetland Mitigation	$0
Environmental Retrofit Total	**$1,357**
Improvement Total	**$44,349**
Grand Total All Programs	$57,034